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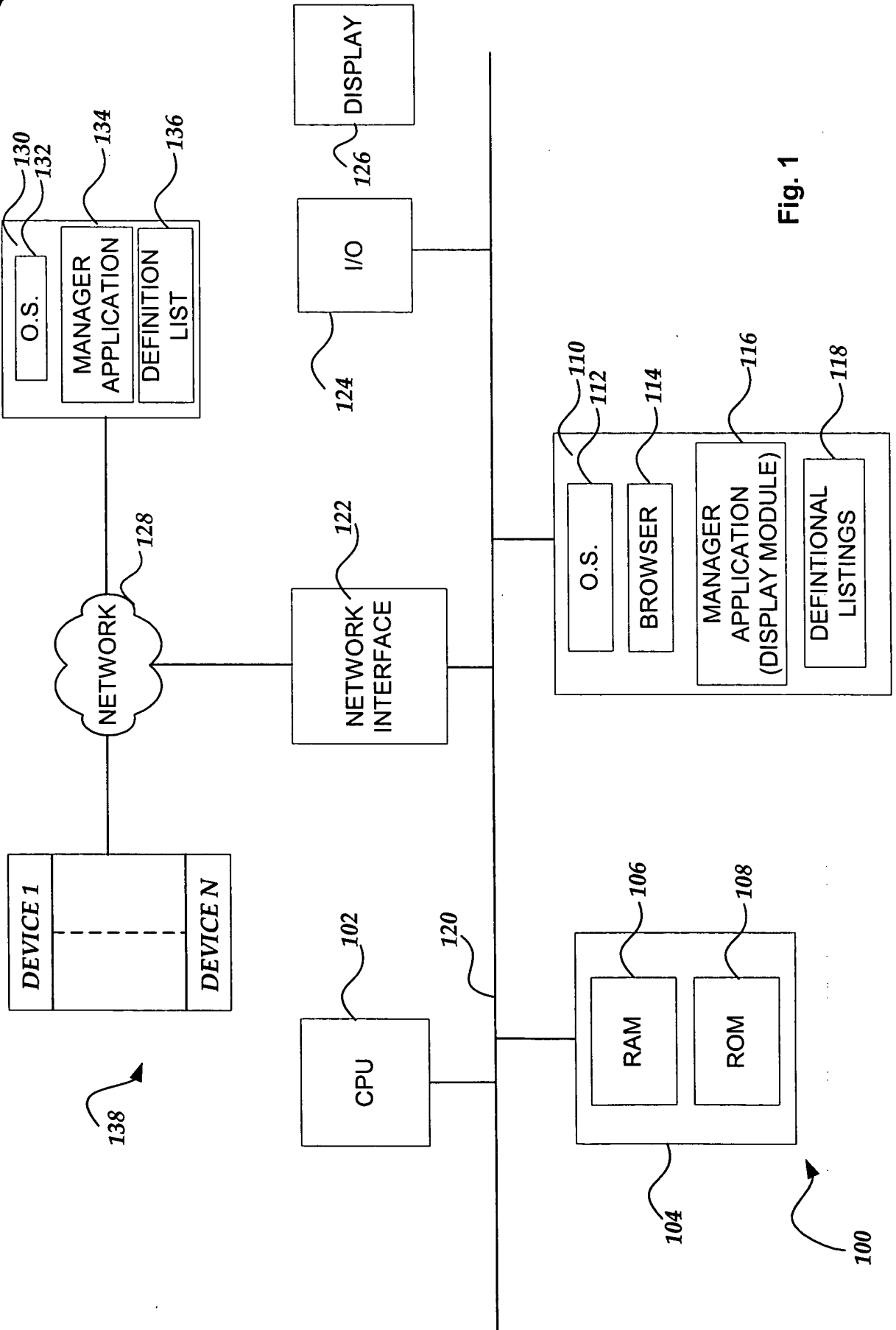


Fig. 1

Acme Router & Rocket, Inc.

Network	ID	Parent	Address Type	Allocation Type & Order	Aggregate	Lending Limits (Min/Max) /28 - /26	Reuse Interval	Description	Address Blocks	Block Status
(4) Acme	1	0	IPv4	Rated Fit Low	Y	210 /28 - /26	0	Acme Routers & Rockets	192.168.120.144 /28 192.168.120.208 /28 192.168.120.224 /30 192.168.120.228 /30 192.168.120.232 /29 192.168.120.240 /28	Free Free Connection Free Free Delegated
(4) Accounting	3	1	IPv4	Utilization Fit Low	Y	None	0	Accounting Dept.	192.168.120.128 /29 192.168.120.136 /29	Connection Free
(4) Engineering	4	1	IPv4	Utilization Fit Low	Y	None	0	Engineering Dept.	192.168.120.64 /26	Connection
(4) LAB	5	4	IPv4	Utilization Fit Low	N	None	0	Lab Area	10.10.10.0 /24	Allocated
(4) Headquarters	2	1	IPv4	Utilization Fit Low	Y	None	0	Acme headquarters	192.168.120.0 /26	Connection
(4) Manufacturing	9	1	IPv4	Utilization Fit Low	Y	None	0	Manufacturing Dept.		
(4) Assembly Line	10	9	IPv4	Utilization Fit Low	Y	None	0	Assembly Line		
(4) Sales	6	1	IPv4	Rated Fit Low	Y	/28 - /27	0	Sales Dept.	192.168.120.160 /29 192.168.120.168 /31 192.168.120.170 /31 192.168.120.172 /30	Connection Connection Free Connection
(4) Sales East	7	6	IPv4	Utilization Fit Low	Y	None	0	Eastern Sales office	192.168.120.176 /29 192.168.120.184 /29	Connection Free
(4) Sales West	8	6	IPv4	Utilization Fit Low	Y	None	0	Western Sales Region	192.168.120.192 /29 192.168.120.200 /29	Connection Free

FIG. 2

Acme Router & Rocket, Inc.

Network	Address Blocks	Size	Status	Aggregate Blocks	Aggregate with Descendants	Addresses Used	Total	%Utilization
☐ (4) Acme	192.168.120.144 /28	16	Free	192.168.120.144 /28	192.168.120.0 /24	Local 20	64	72.656%
	192.168.120.208 /28	16	Free	192.168.120.208 /28				
	192.168.120.224 /30	4	Connection	192.168.120.224 /27				
	192.168.120.228 /30	4	Free					
	192.168.120.232 /29	8	Free					
	192.168.120.240 /28	16	Delegated					
☐ (4) Accounting	192.168.120.128 /29	8	Connection	192.168.120.128 /28	192.168.120.128 /28	8	16	50%
	192.168.120.136 /29	8	Free					
☐ (4) Engineering	192.168.120.64 /26	64	Connection	192.168.120.64 /26	192.168.120.64 /26	64	64	100%
	10.10.10.0 /24	256	Allocated	10.10.10.0 /24				
☐ (4) Headquarters	192.168.120.0 /26	64	Connection	192.168.120.0 /26	192.168.120.0 /26	64	64	100%
	10.10.10.0 /24	256	Allocated	10.10.10.0 /24				
☐ (4) Manufacturing						Local 0	0	
						Agg. 0	0	
☐ (4) Assembly Line						0	0	
							0	
☐ (4) Sales	192.168.120.160 /29	8	Connection	192.168.120.160 /28	192.168.120.160 /27 192.168.120.192 /28	Local 14	16	62.5%
	192.168.120.168 /30	2	Connection					
	192.168.120.170 /30	2	Free					
☐ (4) Sales East	192.168.120.172 /30	4	Connection	192.168.120.172 /28	192.168.120.176 /28	8	16	50%
	192.168.120.176 /29	8	Connection					
☐ (4) Sales West	192.168.120.184 /29	8	Free		192.168.120.192 /28	8	16	50%
	192.168.120.192 /29	8	Connection	192.168.120.192 /28				
	192.168.120.200 /29	8	Free					

FIG. 2A

Fig. 3

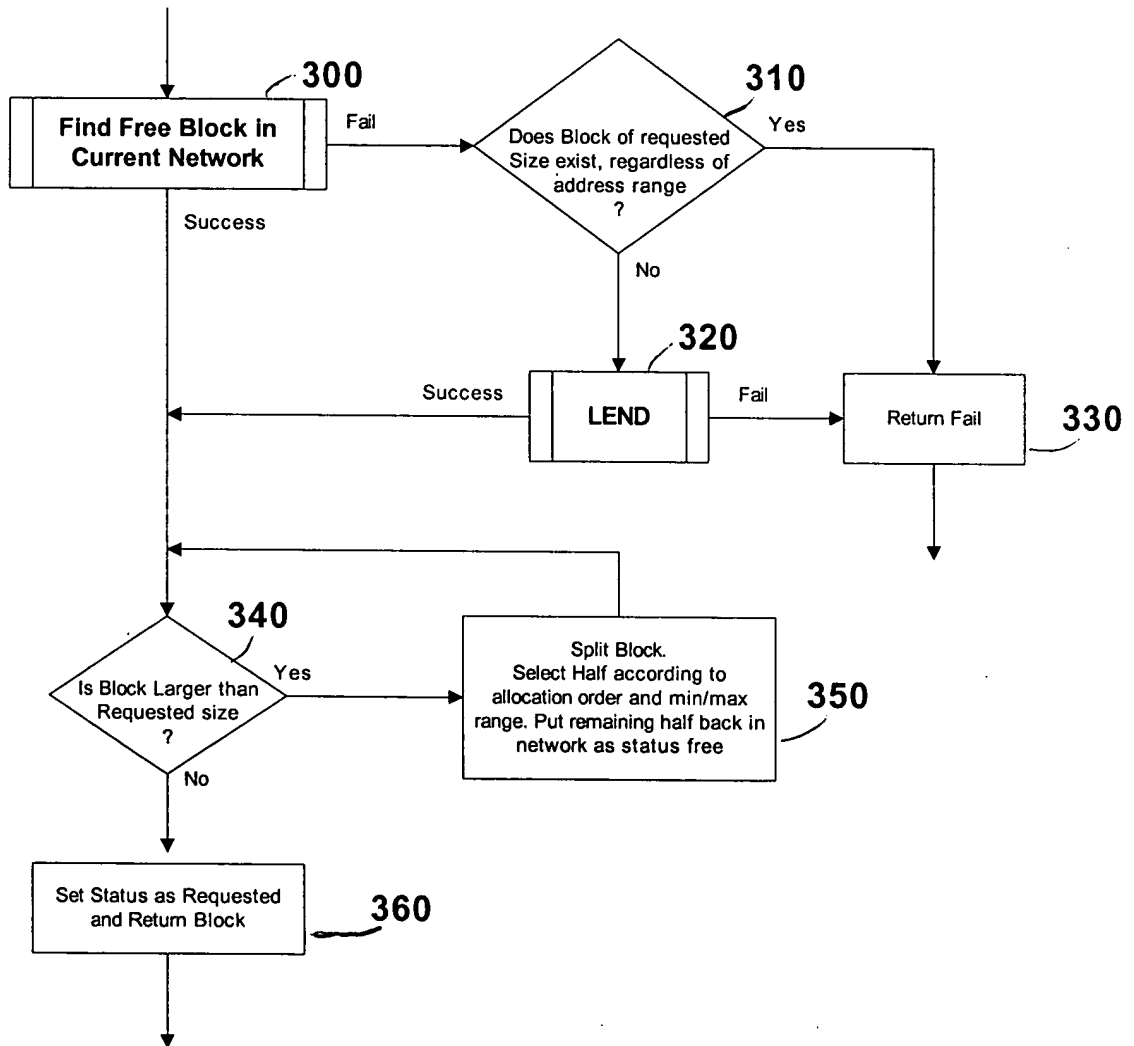


Fig 4

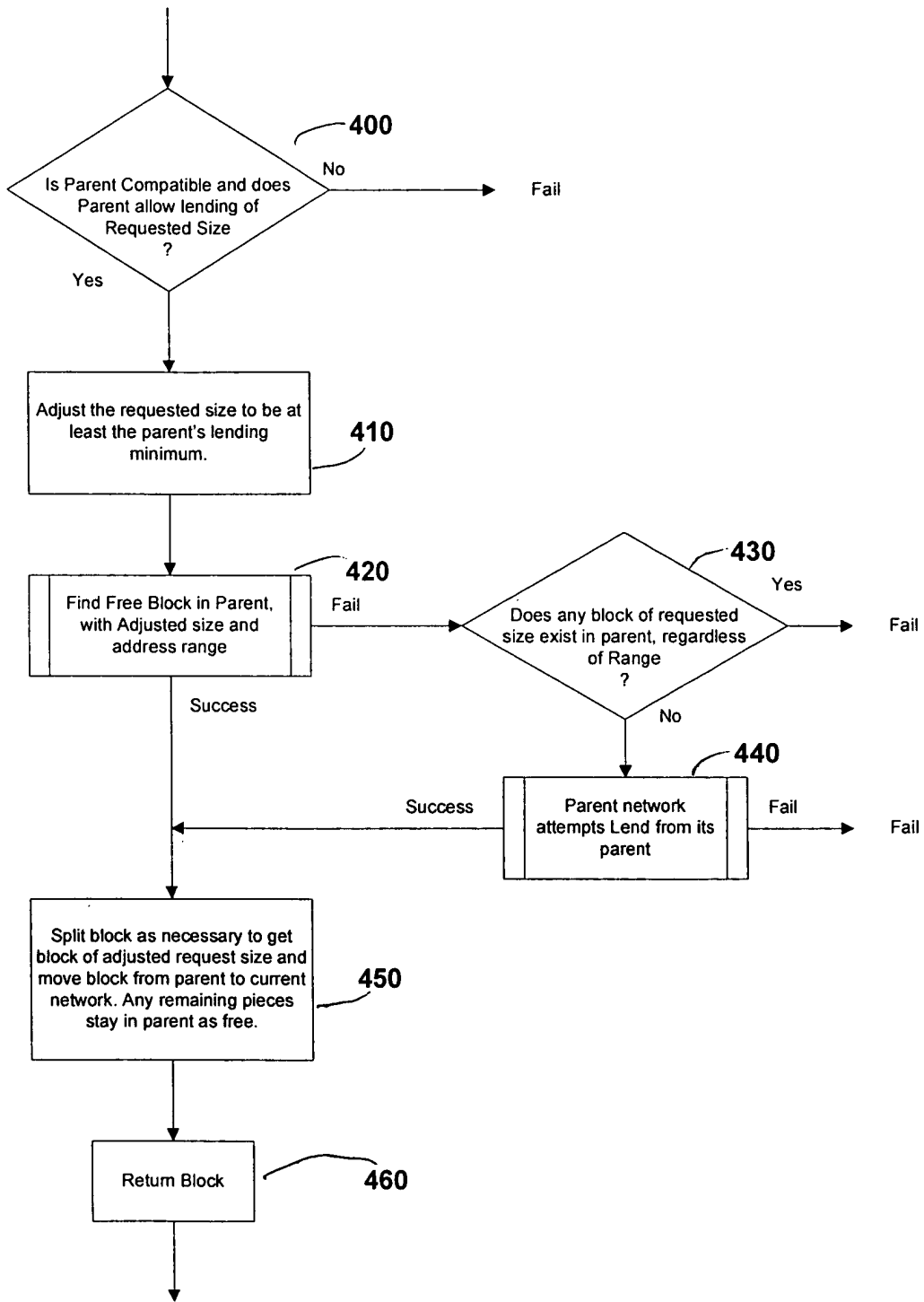
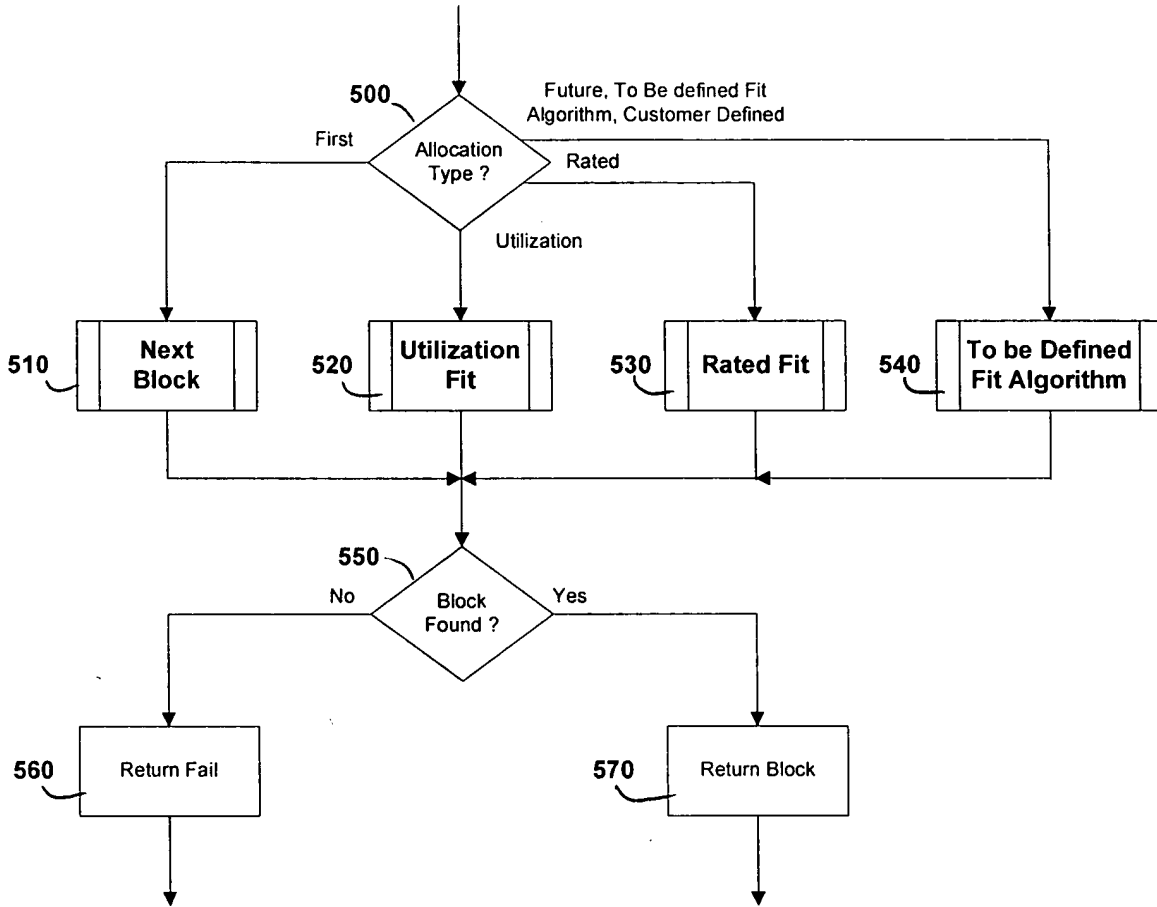


FIG. 5



**Fig 6**

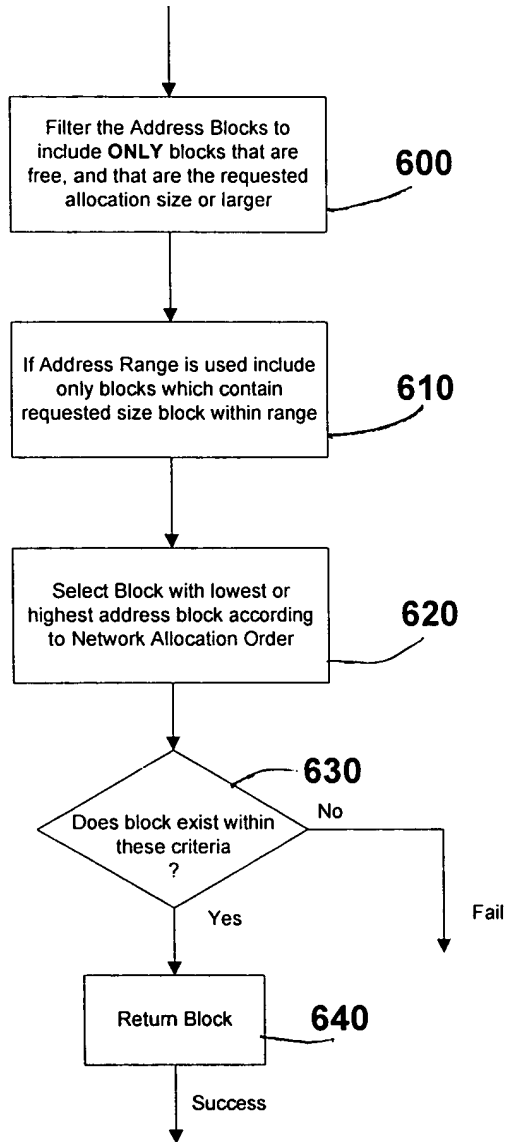
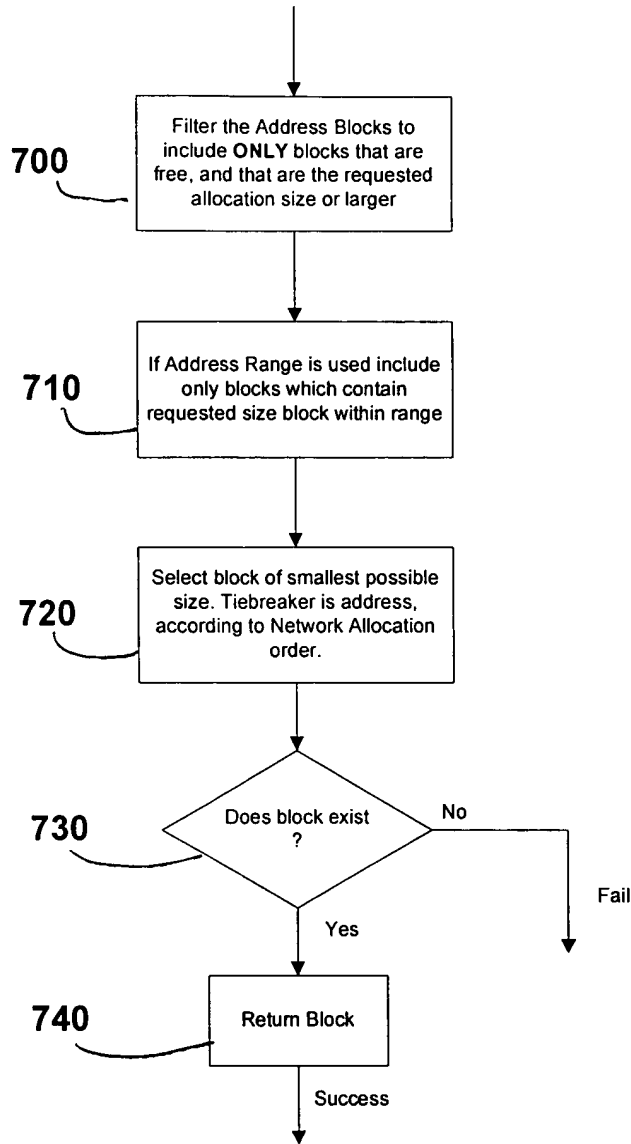




Fig 7



**Fig 8**

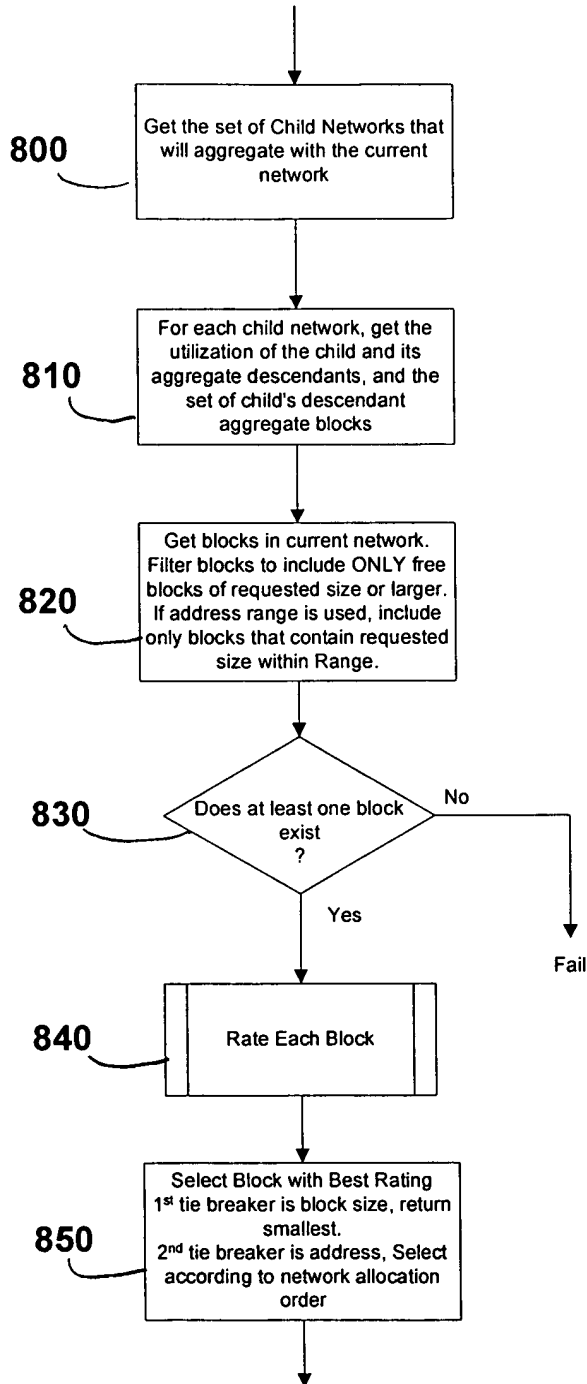


Fig 9

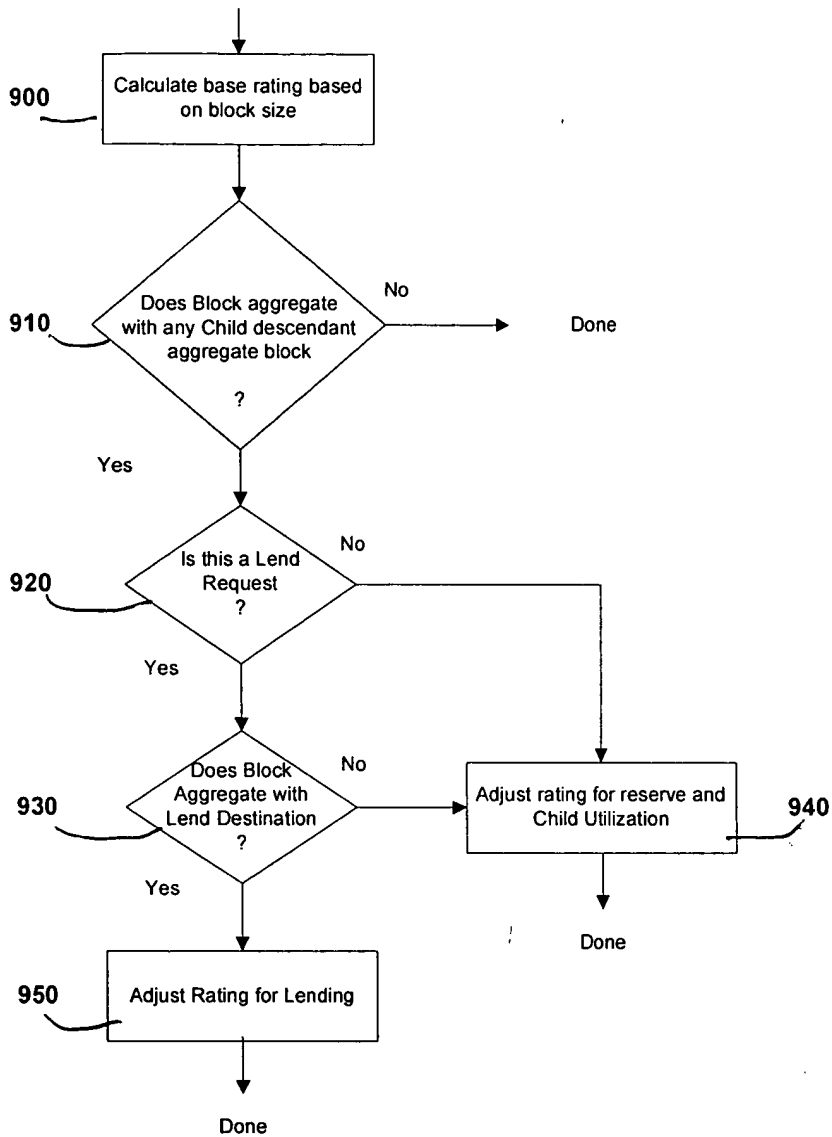
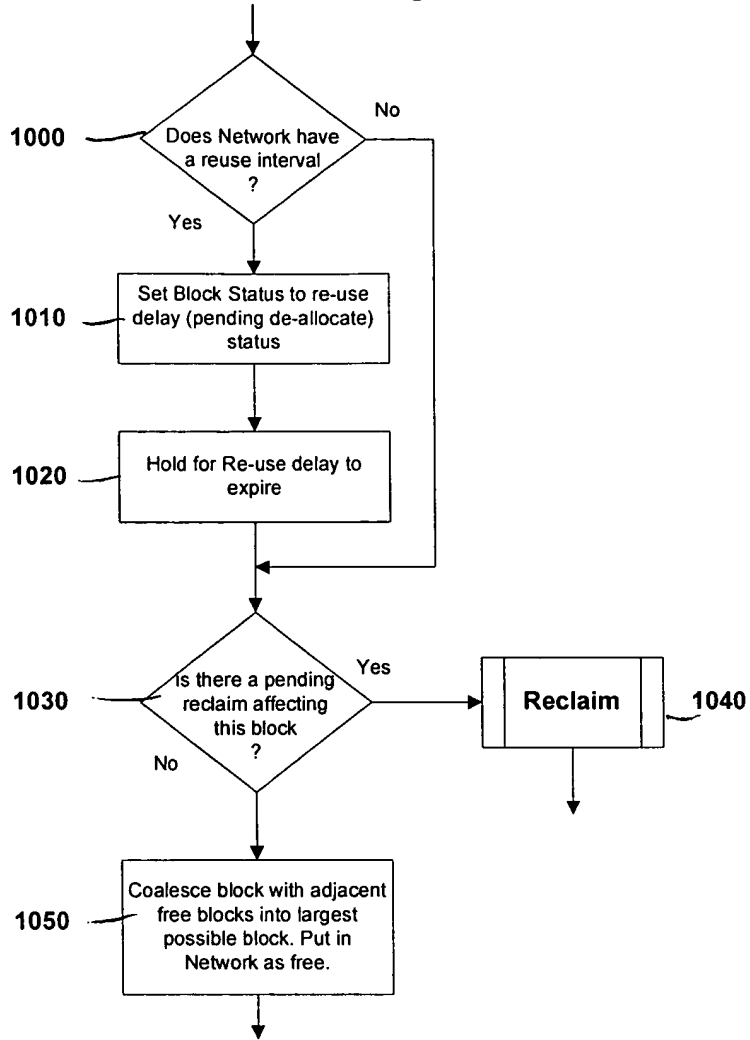


Fig 10



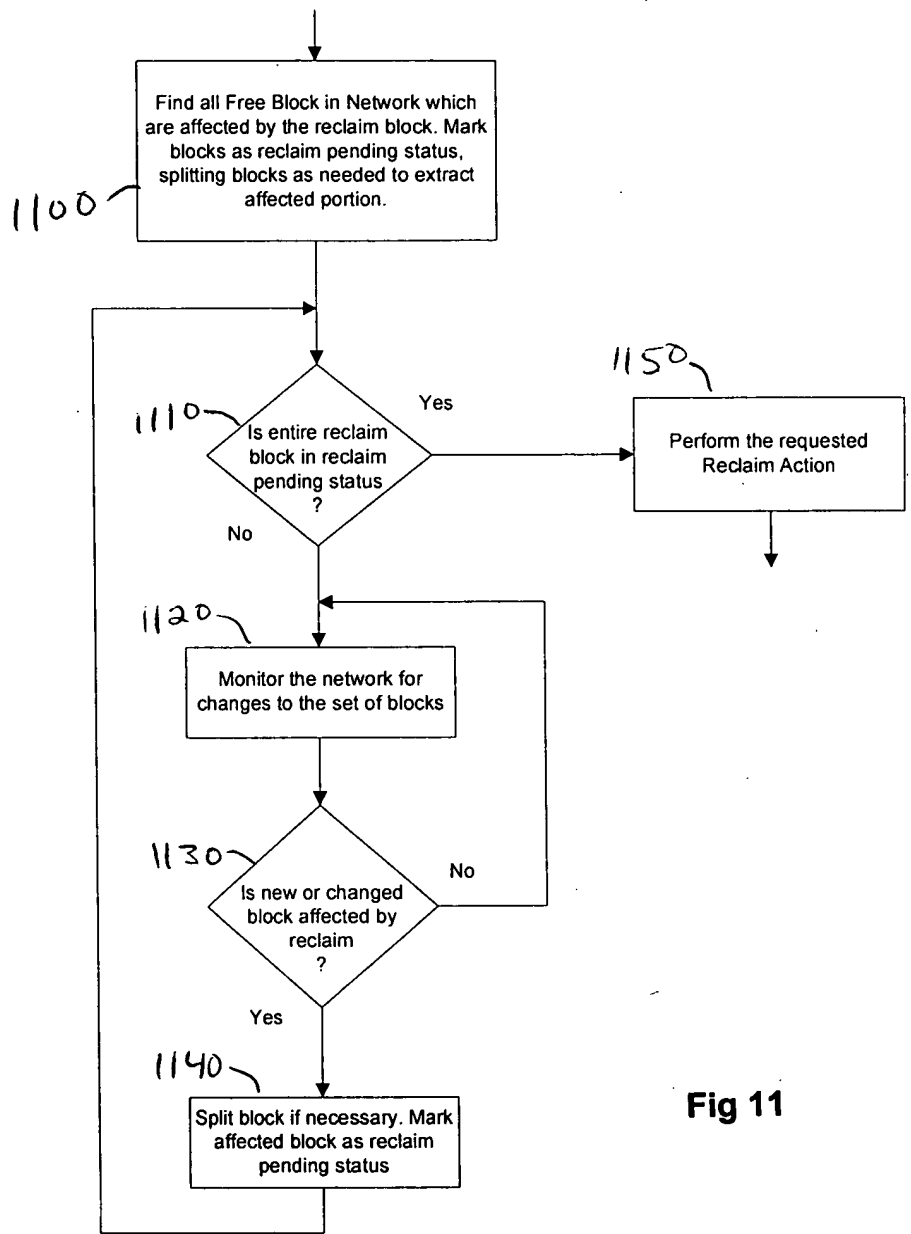


Fig 11

Inventor: Dennis Joseph Boylan

Docket No.: 60088.0002US01

Title: Methods, Computer Systems, and Computer Readable Media for Controlling the Status of

Network Address Space

Serial No.: 10/677,459

Sheet 13 of 37

The screenshot shows a web browser window titled "IP Address Management - Microsoft Internet Explorer". The address bar shows "http://test.ipam.lan.com/IPam/ipam.cgi". The main content area is divided into two panes. The left pane shows a tree view of network devices under "ACME Corp.", with sub-nodes for "Acme", "Merchant", "All office", "Core", "ZAcme", and "Test". Handwritten annotations "1208" and "1202" point to the "Acme" and "All office" nodes respectively. The right pane is titled "Add device" and shows a list of device templates under "Acme". The table below has columns for "Template", "Manufacturer", "Model", and "Description".

Template	Manufacturer	Model	Description
SinglePort	Acme	SinglePort	A device with one port
DualPort	Acme	DualPort	A device with two ports

Below the tree view, there is a section titled "Devices in network All office" with a table:

Name	Created	Modified	# Int
PC1	08/15/2003	08/15/2003	1
PC2	08/15/2003	08/15/2003	1
PC4	08/15/2003	08/15/2003	1
PC3	08/15/2003	08/15/2003	1
PC5	08/15/2003	08/15/2003	1

Handwritten annotations "1204" and "1206" point to the "All office" node and the "DualPort" template respectively. The address bar at the bottom shows a URL with a template ID: "http://test.ipam.lan.com/IPam/ipam.cgi?template=bodydevadd&template=acme\_1p&sid=cdd964659fab8ae0f1d8105d1f60d3c". A handwritten annotation "1200" points to this URL.

Fig. 12

Replacement Sheet

Inventor: Dennis Joseph Boylan  
Docket No.: 60088.0002US01  
Title: Methods, Computer Systems, and Computer Readable Media for Controlling the Status of Network Address Space  
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Sheet 14 of 37

IP Address Management - Microsoft Internet Explorer

Address: http://test.ipam.tan.com/IPam/Ipam.cgi

Architecture | Devices | Ranges | Reports | Logout | Help

Add device to network Atl office

Template: SinglePort  
Type: Acme SinglePort  
A device with one port  
Name: PC6  
Description:

Interface Name: Port 1  
Description:

Connection source: - select network -  
Connection: - select network -  
Acme (IPv4 Agg)  
Headquarters (IPv4 Agg)  
Accounting (IPv4 Agg)  
Engineering (IPv4 Agg)  
Lab (IPv4)  
Sales (IPv4 Agg)  
Sales East (IPv4 Agg)  
Sales West (IPv4 Agg)  
Merchant (IPv4 Agg)  
Atl office (IPv4 Agg)

1302

1304

1300

Devices in network Atl office

Name	Created	Modified	# Int
PC1	08/15/2003	08/15/2003	1
PC2	08/15/2003	08/15/2003	1
PC4	08/15/2003	08/15/2003	1
PC3	08/15/2003	08/15/2003	1
PC5	08/15/2003	08/15/2003	1

Max Records to display: Update

Done Internet

Fig. 13

Replacement Sheet

Inventor: Dennis Joseph Boylan  
Docket No.: 60088.0002US01  
Title: Methods, Computer Systems, and Computer Readable Media for Controlling the Status of Network Address Space  
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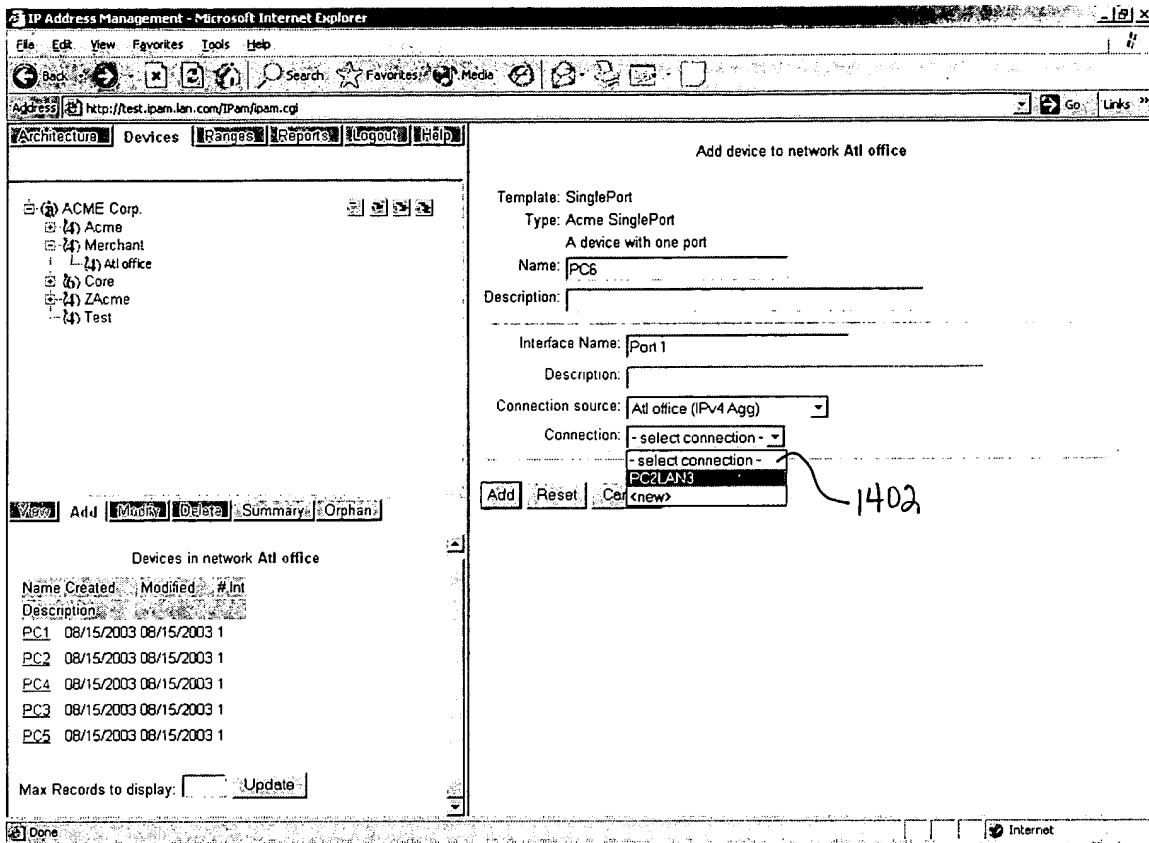


Fig. 14



Inventor: Dennis Joseph Boylan  
Docket No.: 60088.0002US01  
Title: Methods, Computer Systems, and Computer Readable Media for Controlling the Status of Network Address Space  
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IP Address Management - Microsoft Internet Explorer

Address <http://test.ipam.lan.com/IPam/ipam.cgi>

Architecture | **Devices** | Ranges | Reports | Logout | Help

Device PC6

Add Device PC6 Successful

▼ Details

Device Name PC6

Description

Created 08/18/2003 10:58:16

Modified 08/18/2003 10:58:16

▼ Interfaces

Name	Network	Address	Description	Connection
Port 1	All office	192.168.122.9/30		PC2LAN3

1502

View | Add | Modify | Delete | Summary | Orphan

Devices in network All office

Name	Created	Modified	# Int
PC1	08/15/2003	08/15/2003	1
PC2	08/15/2003	08/15/2003	1
PC4	08/15/2003	08/15/2003	1
PC3	08/15/2003	08/15/2003	1
PC5	08/15/2003	08/15/2003	1
PC6	08/18/2003	08/18/2003	1

1500

Done Internet

Fig. 15

Replacement Sheet

Inventor: Dennis Joseph Boylan

Docket No.: 60088.0002US01

Title: Methods, Computer Systems, and Computer Readable Media for Controlling the Status of Network Address Space

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Sheet 17 of 37

IP Address Management - Microsoft Internet Explorer

Address: http://test.ipam.lan.com/IPam/ipam.cgi

Architecture: Devices: Ranges: Reports: Logout: Help

Add device to network Att office

Template: SinglePort  
Type: Acme SinglePort  
A device with one port  
Name: PC7  
Description:

Interface Name: Port 1  
Description:  
Connection source: All office (IPv4 Agg)  
Connection: new  
Name: PC2LAN4  
Description:

Point-to-Point  Pool  
 Use /31 address  
*\*Select this option only if the device to be connected supports /31 network addressing.*

Add Reset Cancel

Name	Created	Modified	# Int
PC1	08/15/2003	08/15/2003	1
PC2	08/15/2003	08/15/2003	1
PC4	08/15/2003	08/15/2003	1
PC3	08/15/2003	08/15/2003	1
PC5	08/15/2003	08/15/2003	1
PC6	08/18/2003	08/18/2003	1

Max Records to display: 10 Update

1600

Fig. 16

The screenshot shows a web browser window titled "IP Address Management - Microsoft Internet Explorer". The address bar shows "http://test.ipam.lan.com/IPam/ipam.cgi". The interface has several tabs: "Architecture", "Devices", "Ranges", "Reports", "Logout", and "Help".

The "Devices" tab is active, showing a tree view on the left with a hierarchy: ACME Corp. > Acme > Merchant > All office > Core > ZAcme > Test. Below the tree are buttons for "View", "Add", "Modify", "Delete", "Summary", and "Orphan".

The main content area displays "Device PC7" with a success message "Add Device PC7 Successful". Below this, there are sections for "Details" and "Interfaces".

**Details:**

- Device Name: PC7
- Description: Created 08/18/2003 11:00:12, Modified 08/18/2003 11:00:13

**Interfaces:**

Name	Network Address	Description	Connection
Port 1	All office	192.168.122.18 /30	PC2LAN4

Handwritten annotations include "1702" next to the interface table and "1700" with an arrow pointing to the "Add" button.

Fig. 17

View address details for network Atl office

Address	Mask	Size	Status	Owner
192.168.122.4	30	4	Allocated	PC2LAN
192.168.122.8	30	4	Allocated	PC2LAN3
192.168.122.12	30	4	Allocated	PC2LAN
192.168.122.16	30	4	Allocated	PC2LAN4

Max Records to display:  Update

Devices in network Atl office

Name	Created	Modified	#	Int
PC1	08/15/2003	08/15/2003	1	
PC2	08/15/2003	08/15/2003	1	
PC4	08/15/2003	08/15/2003	1	
PC3	08/15/2003	08/15/2003	1	
PC5	08/15/2003	08/15/2003	1	
PC6	08/18/2003	08/18/2003	1	
PC7	08/18/2003	08/18/2003	1	

Fig. 18

IP Address Management - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Address http://test.ipam.lan.com/IPam/ipam.cgi Go

Architecture Devices Ranges Reports Logout

View address details for network Atl office

Address	Mask	Size	Status	Owner
192.168.122.4	30	4	Allocated	PC2LAN
192.168.122.8	30	4	Allocated	PC2LAN3
192.168.122.12	30	4	Allocated	PC2LAN
192.168.122.16	30	4	Allocated	PC2LAN4

Max Records to display:  Update

Connection PC2LAN4

Network: Atl office  
Block: 192.168.122.16/30 Size: 4

Address	Mask	Size	Status	Device	Interface
192.168.122.16	32	1	Reserved unusable		
192.168.122.17	32	1	Free		
192.168.122.18	32	1	Allocated	PC7	Port 1
192.168.122.19	32	1	Reserved unusable		

Max Records to display:  Update

Devices in network Atl office

Name	Created	Modified	# Int	Description
PC1	08/15/2003	08/15/2003	1	
PC2	08/15/2003	08/15/2003	1	
PC4	08/15/2003	08/15/2003	1	
PC3	08/15/2003	08/15/2003	1	
PC5	08/15/2003	08/15/2003	1	
PC6	08/18/2003	08/18/2003	1	
PC7	08/18/2003	08/18/2003	1	

Done Local intranet

Fig 19

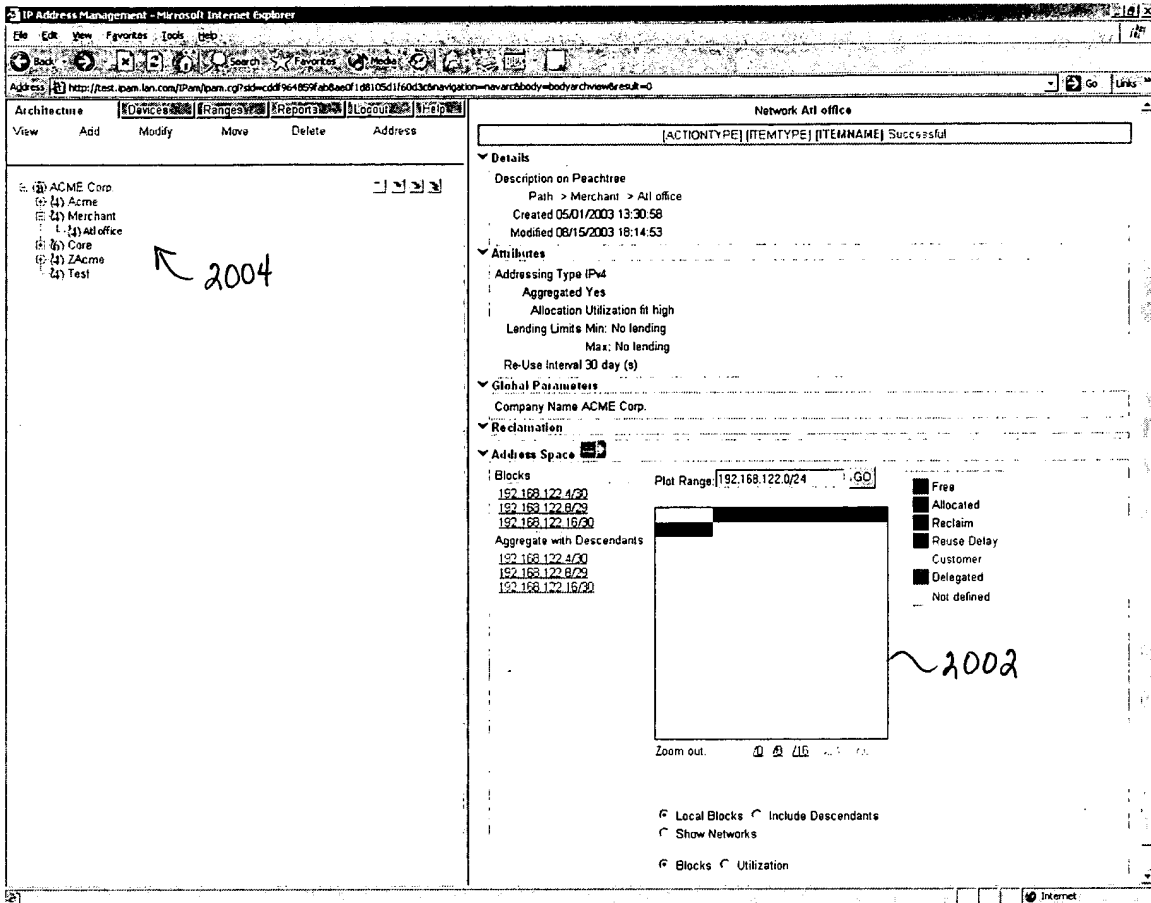


Fig. 20

Inventor: Dennis Joseph Boylan

Docket No.: 60088.0002U501

Title: Methods, Computer Systems, and Computer Readable Media for Controlling the Status of Network Address Space

Serial No.: 10/677,459

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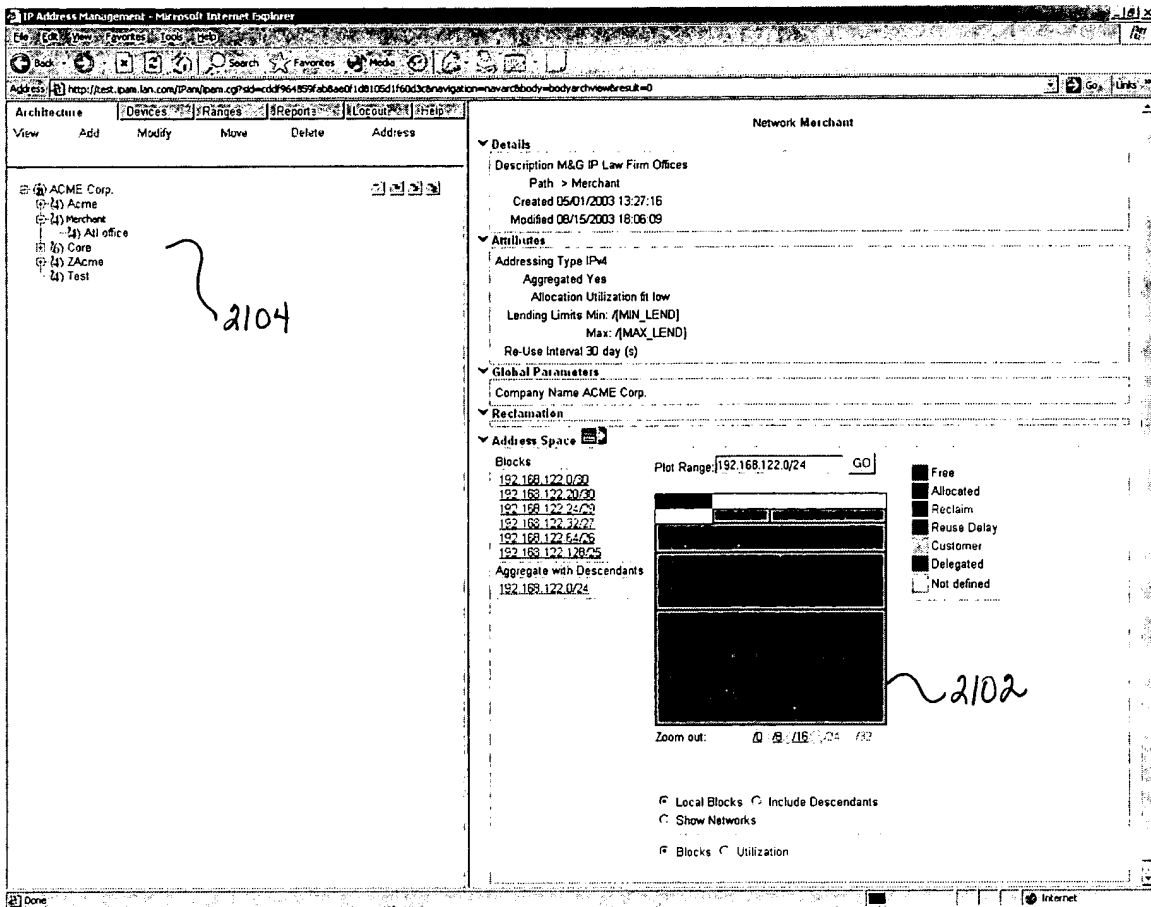


Fig. 21

Request range from network Atl office

Name:

Description:

Mask (Size):  ← 2208

Netmask:

Request Type:

Minimum Starting Address:

Maximum Ending Address:  ← 2210

Request Type dropdown options:  
Free  
Allocated  
Allocated-Serial  
Reclamation  
Delegated  
Reserved unusable  
Reserved Re-use Delay  
Customer Owned Free  
Customer Owned Allocated

Address ranges in network Atl office

Name	Status	Created	Modified	Size
PC2LAN	Allocated	08/15/2003 17:50:08	08/15/2003 17:50:08	4

← 2200

Fig. 22



Replacement Sheet

Inventor: Dennis Joseph Boylan

Docket No.: 60088.0002US01

Title: Methods, Computer Systems, and Computer Readable Media for Controlling the Status of

Network Address Space

Serial No.: 10/677,459

Sheet 24 of 37

The screenshot shows a web browser window titled "IP Address Management - Microsoft Internet Explorer". The address bar contains a URL from "http://test.ipam.len.com/". The main content area is divided into two panes. The left pane, titled "Architecture", shows a tree view of network entities: ACME Corp. (containing Acme, Merchant, All office, Core, ZAcme, and Test). Handwritten annotations include "2304" pointing to the "Merchant" node, "2308" pointing to the "All office" node, and "2302" pointing to the "ZAcme" node. The right pane, titled "Modify network Merchant", contains a form with the following fields: "Network Name" (Merchant), "Description" (M&G IP Law Firm Offices), "Addressing Type" (IPv4), "Aggregated" (Yes), "Allocation" (Utilization fit low), "Lending" (None), "Min Limit" (1 / 32), "Max Limit" (64 / 26), and "Re-use Interval" (INTE days). Handwritten annotations include "2306" with an arrow pointing to the "Max Limit" field and "2300" with an arrow pointing to the "Re-use Interval" field. At the bottom of the browser window, the status bar shows "Done" and "Internet".

Fig. 23

Replacement Sheet

Inventor: Dennis Joseph Boylan

Docket No.: 60088.0002US01

Title: Methods, Computer Systems, and Computer Readable Media for Controlling the Status of

Network Address Space

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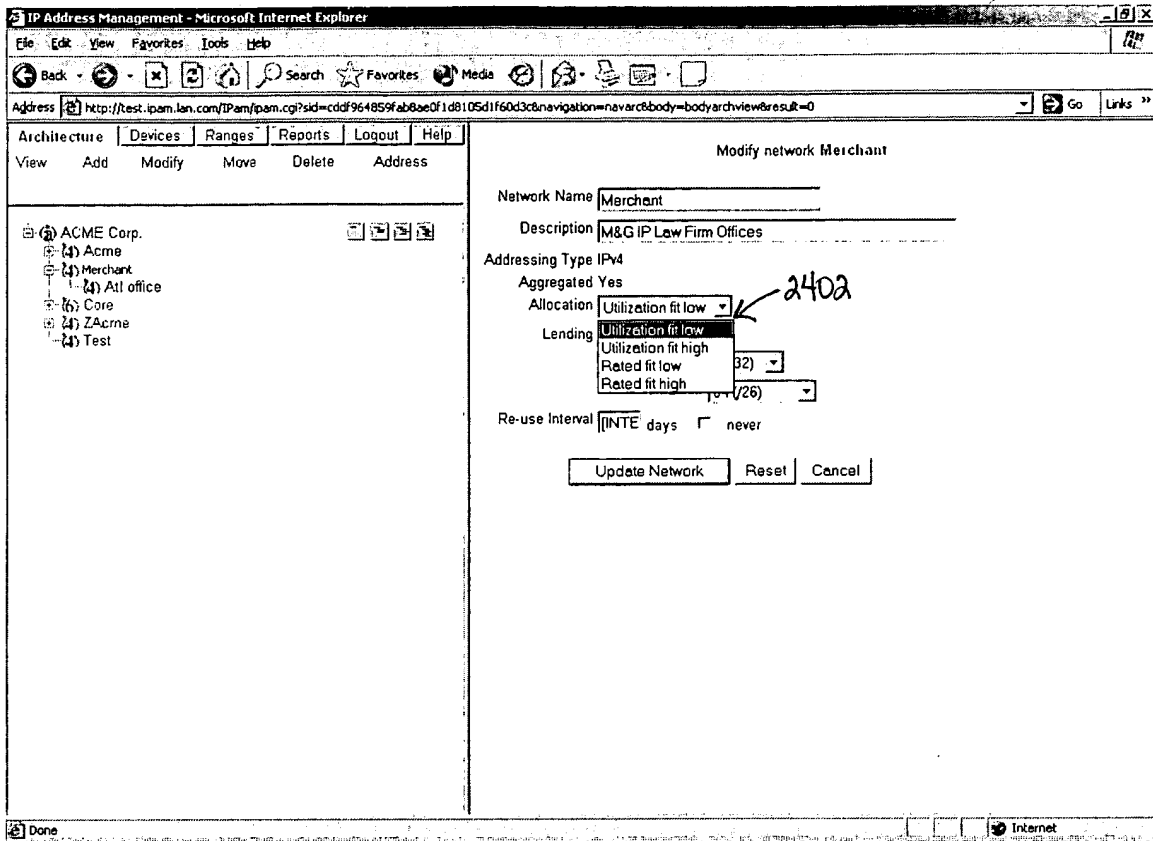


Fig. 24

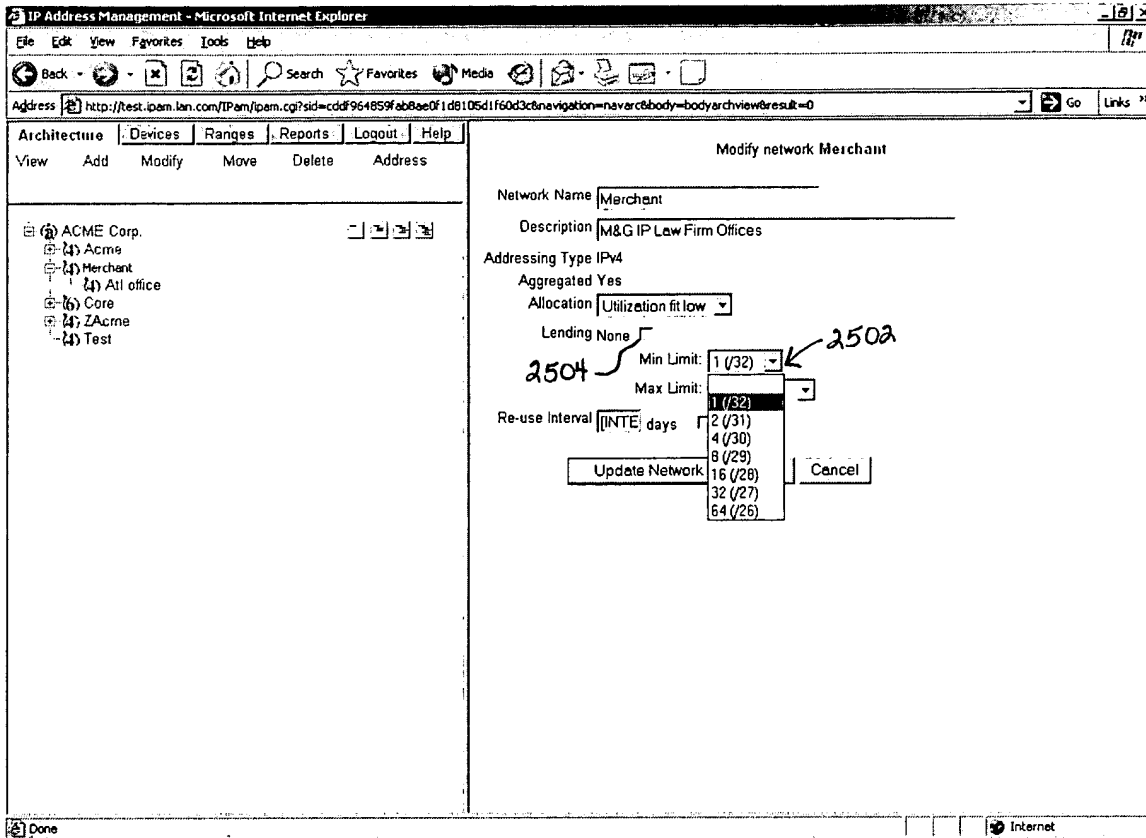


Fig. 25

Replacement Sheet

Inventor: Dennis Joseph Boylan

Docket No.: 60088.0002U501

Title: Methods, Computer Systems, and Computer Readable Media for Controlling the Status of

Network Address Space

Serial No.: 10/677,459

Sheet 27 of 37

The screenshot shows a web browser window titled "IP Address Management - Microsoft Internet Explorer". The address bar contains a URL: `http://test.ipam.lan.com/IPam/ipam.cgi?sid=cdd964859fab8ae0f1d8105d1f60d3c8&navigation=navarc&body=bodyarchview&result=0`. The browser window is divided into two main sections. On the left is the "Architecture" pane, which shows a tree view of the network structure. The tree is expanded to show "ACME Corp." with sub-nodes for "Acme", "Merchant", "Atl office", "Core", "ZAcme", and "Test". On the right is the "Modify network Merchant" dialog box. It contains the following fields and options: "Network Name" (Merchant), "Description" (M&G IP Law Firm Offices), "Addressing Type" (IPv4), "Aggregated" (Yes), "Allocation" (Utilization fit low), "Lending" (None), "Min Limit" (1 / 32), "Max Limit" (64 / 26), and "Re-use Interval" (INTE days). A dropdown menu is open for the "Max Limit" field, showing a list of options: 1 (32), 2 (31), 4 (30), 8 (29), 16 (28), 32 (27), 64 (26), 128 (25), 256 (24), 512 (23), and 1024 (22). A handwritten arrow points to the "64 (26)" option in the dropdown menu, with the number "2602" written next to it. Below the browser window, another handwritten arrow points to the "1024 (22)" option in the dropdown menu, with the number "2600" written next to it. The browser status bar at the bottom shows "Done" and "Internet".

Fig. 26

Replacement Sheet

Inventor: Dennis Joseph Boylan

Docket No.: 60088.0002U501

Title: Methods, Computer Systems, and Computer Readable Media for Controlling the Status of Network Address Space

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The screenshot shows a web browser window titled "IP Address Management - Microsoft Internet Explorer". The address bar shows "http://test.ipam.lan.com/IPam/ipam.cgi". The main content area is divided into two panes. The left pane shows a tree view of network ranges under "ACME Corp.". The right pane shows a confirmation dialog for deleting a range.

**Tree View (Left Pane):**

- ACME Corp.
  - Acme
    - Headquarters (2704)
    - Accounting
    - Engineering
    - Sales
    - Testing
  - Merchant
    - All office (2702)
  - Core
    - Sol (2702)
    - Earth (2702)
  - Canis Major (2706)
  - Canis Minor (2706)
  - ZAcme
  - Test (2706)

**Confirmation Dialog (Right Pane):**

Confirm delete of range allocated space

Parent Network All office

Description

Created 18/08/2003 17:49:36

Modified 18/08/2003 17:49:36

Addresses 192.168.122.64/26 (2712)

Status Allocated

Netmask 255.255.255.192

Wildmask 0.0.0.63

Broadcast 192.168.122.127

Size 64

Buttons: Delete range allocated space, Cancel

2710

**Table: Address ranges in network All office**

Name	Status	Created	Modified	Size
PC2LAN	Allocated	08/15/2003 17:50:08	08/15/2003 17:50:08	4
allocated space (2708)	Allocated	08/18/2003 17:49:36	08/18/2003 17:49:36	64

Max Records to display: [ ] Update

2700

Fig. 27

IP Address Management - Microsoft Internet Explorer

Address: http://test.ipam.lan.com/IPam/ipam.cgi

Architecture | Devices | Ranges | Reports | Logout | Help

View address details for network Atl office

Delete Address Range allocated space Successful

Address	Mask	Size	Status	Owner
192.168.122.4	30	4	Allocated	PC2LAN
192.168.122.8	30	4	Allocated	PC2LAN3
192.168.122.12	30	4	Allocated	PC2LAN
192.168.122.16	30	4	Reserved Re-use Delay	PC2LAN4
192.168.122.28	31	2	Free	
192.168.122.30	31	2	Allocated	PC2LANaa
192.168.122.64	26	64	Free	

Max Records to display:  Update

2802

2804

View | Add | Modify | Delete | Summary

Address ranges in network Atl office

Name	Status	Created	Modified	Size
PC2LAN	Allocated	08/15/2003 17:50:08	08/15/2003 17:50:08	4

Done Internet

2800

Fig. 28

Replacement Sheet

Inventor: Dennis Joseph Boylan

Docket No.: 60088.0002US01

Title: Methods, Computer Systems, and Computer Readable Media for Controlling the Status of Network Address Space

Serial No.: 10/677,459

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Architecture | Devices | Ranges | Reports | Logout | Help

View address details for network Atl office

Delete Address Range Test 2 Successful

Address	Mask	Size	Status	Owner
192.168.122.4	30	4	Allocated	PC2LAN
192.168.122.8	30	4	Allocated	PC2LAN3
192.168.122.12	30	4	Allocated	PC2LAN
192.168.122.16	30	4	Reserved Re-use Delay	PC2LAN4
192.168.122.28	31	2	Free	
192.168.122.30	31	2	Allocated	PC2LANaa
192.168.122.64	27	32	Free	
192.168.122.96	28	16	Free	
192.168.122.112	29	8	Free	
192.168.122.120	30	4	Free	
192.168.122.124	30	4	Reserved Re-use Delay	Test 2

Max Records to display:  Update

Name	Status	Created	Modified	Size
Description				
PC2LAN	Allocated	08/15/2003 17:50:08	08/15/2003 17:50:08	4

2902

2904

2900

Fig. 29

Replacement Sheet

Inventor: Dennis Joseph Boylan

Docket No.: 60088.0002US01

Title: Methods, Computer Systems, and Computer Readable Media for Controlling the Status of Network Address Space

Serial No.: 10/677,459

Sheet 31 of 37

The screenshot shows a web-based interface for IP Address Management. On the left is a tree view of the network hierarchy. The 'Merchant' node is selected, and its configuration is shown on the right. Handwritten annotations in black ink are present throughout the image, including '3004', '3006', '3008', '3010', '3012', '3002', and '3000' with arrows pointing to specific fields or nodes.

**Architecture** | **Devices** | **Ranges** | **Reports** | **Logout** | **Help**

View | Add | Modify | Move | Delete | Address

**Define Address Range for network Merchant**

Action:  Add  Move  Reclaim  Delete

Type: IPv4

Address: 192.168.122.28

Mask (Size): /30 (4)

Netmask: [ ]

Ending Address: [ ]

Reclaim Name: Reclaim 1 for Merchant

Description: [ ]

Reclaim to status: [ ]

Destination network: Normal Reclamation

Reclaim: Reclaim Move

Reclaim: Reclaim Remove

Current Range:	Blocks i
192.168.122.0/30	192.168
192.168.122.20/30	192.168
192.168.122.28/30	192.168
192.168.122.32/27	192.168
192.168.122.64/26	192.168
192.168.122.128/25	192.168

Free Blocks:
192.168.122.28/30
192.168.122.32/27
192.168.122.64/26
192.168.122.128/25

Network Tree:

- ACME Corp.
  - Acme
    - Headquarters
    - Accounting
  - Engineering
    - Lab
  - Sales
    - Sales East
    - Sales West
  - Testing
- Merchant
  - All office
- Core
  - Sol
    - Earth
  - Canis Major
    - Sirius
    - Colony
    - Murzim
    - Muliphen
  - Canis Minor
- ZAcme
  - ZHeadquarters
  - ZAccounting
- ZSales
  - ZSales East
  - ZSales West
- Test

Fig. 30



The screenshot shows a web browser window titled "IP Address Management - Microsoft Internet Explorer". The address bar shows "http://test.ipam.lan.com/IPam/ipam.cgi". The interface has a navigation menu with "Architecture", "Devices", "Ranges", "Reports", "Logout", and "Help".

The left pane shows a tree view of the network structure:

- ACME Corp.
  - Acme
    - Headquarters
    - Accounting
    - Engineering
    - Sales
    - Testing
  - Merchant
    - Atl office
  - Core
    - Sol
      - Earth
      - Canis Major
      - Canis Minor
    - ZAcme
    - Test

The right pane is titled "View Range allocated space" and displays a success message: "Add Address Range 192.168.122.64 Successful". Below this, it shows details for "Parent Network Atl office":

- Description
- Created 19/08/2003 14:35:33
- Modified 19/08/2003 14:35:33
- Addresses 192.168.122.64/26
- Status Allocated
- Netmask 255.255.255.192
- Wildmask 0.0.0.63
- Broadcast 192.168.122.127
- Size 64

Below the details is a table titled "Address ranges in network Atl office":

Name	Status	Created	Modified	Size
Description				
PC2LAN	Allocated	08/15/2003 17:50:08	08/15/2003 17:50:08	4
allocated space	Allocated	08/19/2003 14:35:33	08/19/2003 14:35:33	64

At the bottom of the table area, there is a "Max Records to display:" field and an "Update" button.

3100

Fig. 31

**IPal Admin - Microsoft Internet Explorer**

File Edit View Favorites Tools Help

Back Address <http://ipam.lan.com/IPam/admin...> Go

User: admin

- System
  - Rated Fit Factors**
  - Network Colors
- View
  - Define Database Fields
  - User Interface Restore
- Users
  - Change User Password
  - Roles
  - User Accounts
- Equipment templates
  - Equipment Templates
- Database
  - Backup
  - Restore
  - Copy
- Logout

### IPal Rated Fit Factors

Type		BSF	ALF	ALB	ARF	ARB	AUF	AUB
IPv4	<a href="#">Edit</a>	6	0.4	-12.8	-0.5625	18	-0.169921875	5.4375
IPv6	<a href="#">Edit</a>	7	1	-128	-0.54688	70	-0.9	116.1563
ASN	<a href="#">Edit</a>	0	0	0	0	0	0	0

3204 (pointing to IPv4 Edit)

3202 (pointing to IPv6 Edit)

3200 (pointing to ASN Edit)

Internet

Fig 32

**IPal Factor Wizard - Microsoft Internet Explorer**

File Edit View Favorites Tools Help Back Address Go

## IPal Factor Wizard

The rating factors determine when one block will be chosen over another favorable but larger block.

**-3212** Address Type

During a lend operation, some blocks may aggregate with the borrowing child network. These blocks are favored for loaning to the child unless they are much larger than the request. delta\_Lend is the difference in bits between a large block that will aggregate with a requesting child and a small block that will not aggregate with any child.

Yes  No **-3214** Is this value constant throughout the entire address range?

**-3216** What is delta\_Lend for the smallest blocks?

**-3218** What is delta\_Lend for the largest blocks?

A network may have some free blocks that aggregate with a child network. During a lend or allocation, these blocks are reserved in favor of blocks that will not aggregate, unless the non-aggregate block is much larger. delta\_Reserve is the difference in bits between a large non-aggregate block and a smaller block that would aggregate with a child.

Yes  No **-3220** Is this value constant throughout the entire address range?

**-3222** What is delta\_Reserve for the smallest blocks?

**-3224** What is delta\_Reserve for the largest blocks?

Blocks that will aggregate with a child network can be reserved more strongly if the child network has high utilization of its address space.

Yes  No **-3226** Does child utilization affect reservation?

Yes  No **-3228** Is the effect constant throughout the entire address range?

**-3230** How much larger is delta-reserve at 100% utilization for the smallest blocks?

**-3232** How much larger is delta-reserve at 100% utilization for the largest blocks?

Factors	Block Mask	No Agg		Agg with child			
		No Agg	Agg with borrower	0% util	50% util	100% util	
BSF	<input type="text" value="6"/>	32	0.000	-12.800	18.000	20.718	23.437
ALF	<input type="text" value="0.4"/>	31	6.000	-6.400	23.437	26.071	28.705
ALB	<input type="text" value="12.8"/>	30	12.000	0.000	28.875	31.423	33.972
ARF	<input type="text" value="0.5625"/>	29	18.000	6.400	34.312	36.776	39.240
ARB	<input type="text" value="18"/>	28	24.000	12.800	39.750	42.128	44.507
AUF	<input type="text" value="0.169921875"/>	27	30.000	19.200	45.187	47.481	49.775
ARB	<input type="text" value="18"/>	26	36.000	25.600	50.625	52.833	55.042
AUF	<input type="text" value="0.169921875"/>	25	42.000	32.000	56.062	58.186	60.310
AUB	<input type="text" value="5.4375"/>	24	48.000	38.400	61.500	63.539	65.578
	<input type="button" value="Show Ratings"/>	23	54.000	44.800	66.937	68.891	70.845
	<input type="button" value="Clear Ratings"/>	22	60.000	51.200	72.375	74.244	76.113
	<input type="button" value="Reset"/>	21	66.000	57.600	77.812	79.596	81.380
	<input type="button" value="Update"/> <input type="button" value="Cancel"/>	20	72.000	64.000	83.250	84.949	86.648
		19	78.000	70.400	88.687	90.301	91.916
		18	84.000	76.800	94.125	95.654	97.183
		17	90.000	83.200	99.562	101.006	102.451
		16	96.000	89.600	105.000	106.359	107.718

Done Internet

Fig 32A

3210

IPal - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://192.168.0.2/wun/Default.aspx

Architecture Range Device Administration Report Help

New Device - Acme

Device Template

Manufacturer: Cisco *3302*

Equipmen	Manufacturer	Model	Description
2620-1E2W	Cisco	2620	1 Ethernet 2 Wan
3620-2E	Cisco	3620	2 Ethernet
3640-4E	Cisco	3640	4 Ethernet

Device entry: Cisco,2620 *3306*

Name: RTR\_Gateway *3304*

Description: HQ Gateway

Interfaces: 3 *3308*

Submit

Name	Type	Description
X E0 <i>3310</i>	Ethernet	Hub C Port 12
X S0	Serial	
X S1 <i>3314</i>	Serial	

Internet

Fig 33

IPal - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://192.168.0.2/wun/Default.aspx> Go

Architecture Range Device Administration Report Help

Device - Acme

Query: 3, Limit: 500, Total: 3 | [Reset](#) | [Add](#)

Name	Network	Created	Modified	Description
RTR_Eng	Engineering	8/25/2003	8/25/2003	Engineering Router
RTR_Gateway	Acme	8/28/2003	8/28/2003	HC Gateway
RTR_Main	Acme	8/25/2003	8/25/2003	Acme Main Router

Interface

Name	Network	Connection	Address	Description
E0				Hub C Port 12
S0				
S1				

3402

3400

Done Internet

Fig 34

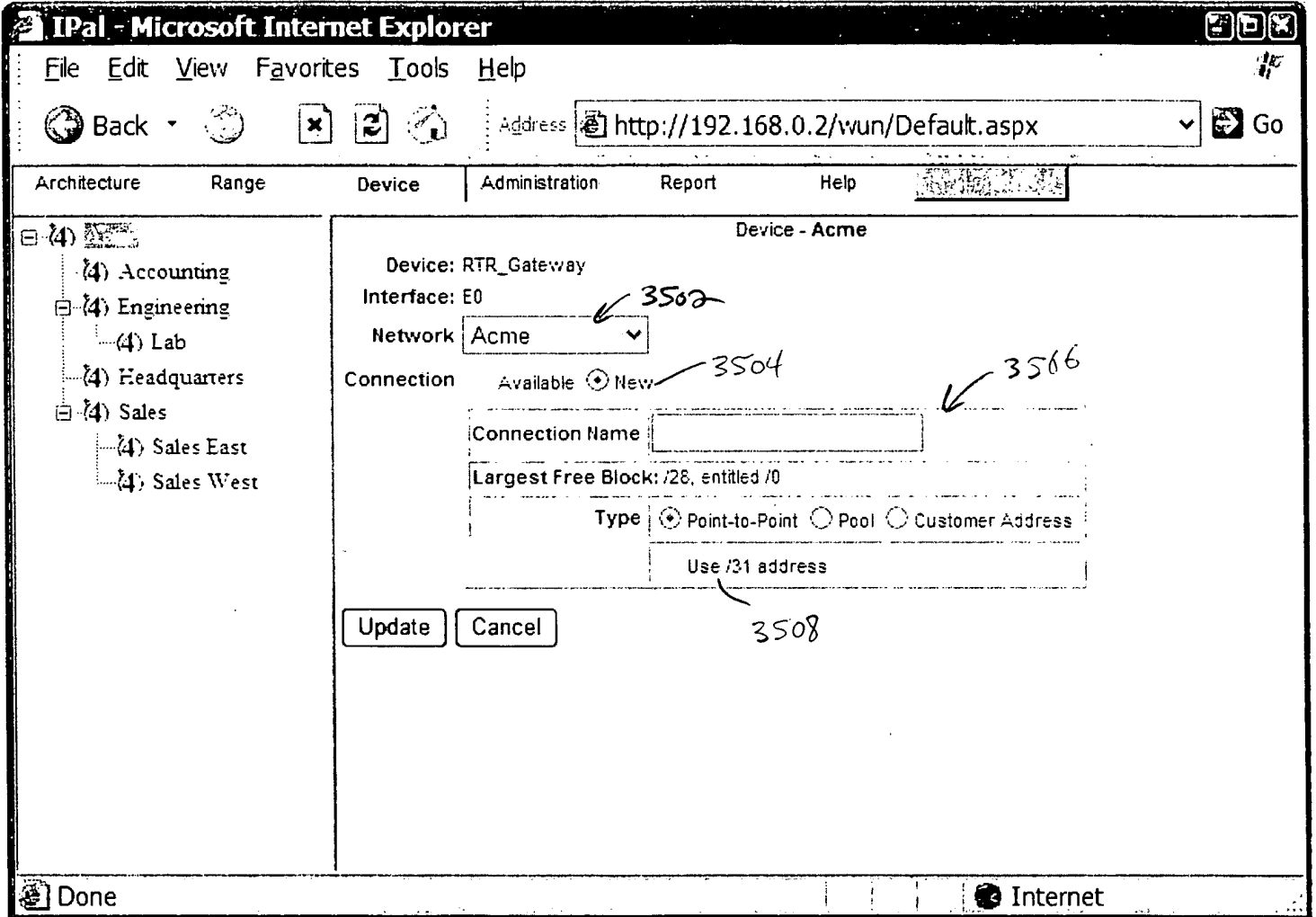


Fig 35